FURSOV, V.A.

PHASE I BOOK EXPLOITATION 949

U.S.S.R. Ministerstvo svyazi. Tekhnicheskoye upravleniye.

Novaya apparatura radiofikatsii gorodov; informatsionnyy sbornik.
(New Equipment for Urban Radio Systems; Collection of Information)
Moscow, Svyaz'izdat, 1958. 48 p. (Series: Tekhnika svyazi) 11,800 copies printed.

Resp. Ed.: Fursov, V.A.; Tech. Ed.: Mazel', Ye. I.; Ed.: Novikova, Ye.S.

PURPOSE: The monograph may be useful to engineers working in the design of wire communication systems.

COVERAGE: The monograph contains three articles describing some new components of typical wire communication equipment designed for the switching and remote control of various sections of an urban wire communication network. The equipment was developed by the Central Design Bureau of the USSR Ministry of Communication. No personalities are mentioned. There are no references.

TABLE OF CONTENTS:

Card 1/3

The AVK-1 equipment is designed for use at supporting amplifier stations and substations. The author describes the operation of a circuit for automatic switching of loads of a TU-5 power amplifier and discusses a system for protecting and switching on the distribution feeders. She also describes measurement of feeder input resistance and the resistance of feeder insulation. A general view and the method of assembling the AVK-1 equipment are also presented.

Baranovskiy, B.K. UUP-1 Equipment for Remote Control of Amplifier Substations 20
The UUP-1 equipment is designed for controlling two amplifier substations from a central amplifier station. The author describes the system in general and discusses a method of switching on the filament circuit and the plate circuits of TU-5-3 amplifiers. Switching of preamplifier circuits is described and a method of signaling and automatic switching of amplifiers is discussed. A general view and the method of assembling the equipment are also given.

Kuperman, Ye.I. (Deceased). UKTP-1 Rack for Remote Control and Supervision of Transformer Substations 36

The UKTP-1 rack is designed to control six or twelve transformer substations. The author gives basic specifications of the rack and describes the remote control of main feeders. He also discusses the remote control of feeders of public-address systems. A general view and the method of assembling the equipment are also presented.

AVAILABLE: Library of Congress (TK 6560.R8)

JP/fal
1-4-59

Card 3/3

FURSOV, V.A.; BROYT, E.M., red.; MARKOCH, K.G., tekhn.red.

[PFA-1 radio station control pannel] Pul't fonicheskoi apparatnoi tipa PFA-1. Moskva, Sviaz'izdat, 1959. 12 p. (MIRA 13:9)
(Radio stations--Equipment and supplies)

FURSOV, V.A.; BROYT, E.M., red.; MARKOCH, K.G., tekhn.red.

[SNPT-2-4 voltage stabilizer] Stabilizator napriazheniia SNPT-2-4. Moskva, Sviaz'izdat, 1959. 8 p. (MIRA 14:3)

1. Russia (1923- U.S.S.R.) Ministerstvo svyazi. Upravleniye promyshlennykh predpriyatiy.
(Voltage regulators) (Electric power distribution)

FURSOV, V.A.; BROYT, E.M., red.; MARKOCH, K.G., tekhn.red.

[VIS-4 inlet and testing stand] Vvodno-ispytatel'naia stoika VIS-4. Moskva, Sviaz'izdat, 1959. 11 p. (MIRA 14:3)

1. Russia (1923- U.S.S.R.) Ministerstvo svyazi. Upravleniye promyshlennykh predpriyatiy.
(Telephone--Equipment and supplies)

AUTHORS: Shafranov, V. P., Shishkov, A. I., Fursov, V. D., Petrenko, G. P. SOV/105-58-9-9/34

TITLE: Large-Scale Testing of an Overburden Stripping Dragline Excavator Having a New Electric Drive System (Promyshlennyye ispytaniya vskryshnogo kanatno-kovshovogo ekskavatora s novoy sistemoy elektroprivoda)

PERIODICAL: Elektrichestvo, 1958, Nr 9, pp 43 - 46 (USSR)

ABSTRACT: Since 1946, dragline excavators of type ESh-4/40 (boom length 40 m, bucket capacity 4 cu.m) which are used in open pit coal and ore mining have been produced by the Soviet industry. Up to 1955, induction motors with phase rotors were used as a drive. However, a smooth starting or braking, and the flexibility required for changing load, could not be achieved with them. Therefore, production of an excavator of the same type but with a generator-motor drive, the generator being provided with three windings was taken up by the Novokramatorskiy mashinostroitel'nyy zavod (Novokramatorskiy factory for machine construction). This, however, involved substantially higher costs of electric equipment, and made an increase of the output of the power transformer

Card 1/3

Large-Scale Testing of an Overburden Stripping Dragline Excavator Having a New Electric Drive System SOV/105-58-9-9/34

necessary. Since 1957, these excavators have been manufactured with a new type of drive using induction motors. At the above-mentioned factory five of these excavators were produced in 1957, and in the same year one of these, viz., the excavator Nr 153, was tested under the direction of N.Ye.Kuvayev, university teacher at the department for mining electrical engineering of the association given below, in the Razdolskiy sernyy kombinat (Razdol sulphur trust). The main results of these tests are given here. As they show, the technical and operating data have been substantially improved by the new technical solutions found. New features were: Use of saturated reactors in the stator circuit of the reversible motor, inductive reactances in the rotor circuit of the main winch drive motor, and singlephase braking of that motor. There are 6 figures.

ASSOCIATION: Dnepropetrovskiy gornyy institut (Dnepropetrovsk Mining Institute)

SUBMITTED: January 22, 1958

Card 2/3

MIROSHNIK, A.M.; FURSOV, V.D.

Induction motor heating during speed regulation by frequency change.
Izv. DGI 28:149-156 '58. (MIRA 11:10)
(Electric motors, Induction--Testing)
(Frequency changers)

POLTAVA, L.I., dots.; FURSOV, V.D., assistent

Protection from single-phase contacts to ground in high-voltage mine circuits. Izv.vys.ucheb.zav.; gor.zhur. no.1: 54-59 '59. (MIRA 13:1)

1. Dnepropetrovskiy gornyy institut. Rekomendovana kafedroy tekhnologii gornoy elektrotekhniki.
(Electricity in mining)

VOLOTKOVSKIY, S.A., prof.; FURSOV, V.D., insh.

Automatic control of belt conveyer lines in ore mines and quarries. Izv. vys. ucheb. zav.; 117-128 '60. (MIRA 14:1)

1. Dnepropetrovskiy ordena Trudovogo Krasnogo Znameni gornyy institut imeni Artema. Rekomendovana kafedroy gornoy elektrotekhniki Dnepropetrovskogo gornogo instituta.
(Conveying machinery) (Mine haulage)
(Automatic control)

VOLOTKOVSKIY, S.A., doktor tekhn.nauk,prof.; FURSOV, V.D., inzh.

Automatic control of belt conveyer lines by means of circuits with few leads. Mekh.i avtom. proizv.15 no.4:50-52 Ap '61. (MIRA 14:5)

(Conveying machinery) (Electric controllers)

VOLOTKOVSKIY, S.A., doktor tekhn.nauk; FURSOV, V.D., inzh.

Modernization of charging apparatus for group charging of electric locomotive storage batteries. Vop. rud. transp. no.6:269-275 '62. (MIRA 15:8)

1. Dnepropetrovskiy gornyy institut.
(Mine railroads)

VOLOTKOVSKIY, S.A., doktor tekh.nauk; FURSOV, V.D., inzh.; KOVAL', I.K. inzh.; RUD', V.I., inzh.

Operating characteristics of electric charging devices with semiconductor rectifiers for use in mines. Vest. elektroprom. 34 no.8: 62-64 Ag '63. (MIRA 16:9)
(Electric current rectifiers) (Electricity in mining)

VOLOTKOVSKIY, S.A., prof.; FURSOV, V.D., kand. tekhn. nauk; RUD', V.I., inzh.; MAGIDSON, V.V., kand. tekhn. nauk

New types of mine battery chargers with semiconductor rectifiers. Izv. vys. ucheb. zav.; gor. zhur. 8 no.7:161-166 '65.
(MIRA 18:9)

1. Dnepropetrovskiy ordena Trudovogo Krasnogo Znameni gornyy institut imeni Artema. Rekomendovana kafedroy elektrifikatsii gornykh rabot i promyshlennykh predpriyatiy.

FURSOV, V. I.

V. I. Fursov, Geodezicheskiye signaly i ikh postroyka /Geodetic Signals and Their Construction/, Geodezizdat, 24 sheets, 5,000 copies -1953 - 327p.

Gives the minimum information on construction mechanics that is necessary for the study of the course. Discusses the peculiarities of the utilization of geodetic signals and presents methods of calculating and constructing wooden, steel, and reinforced concrete signals. Describes the main types of geodetic signals used in the USSR and abroad, and gives a comparative analysis and critical evaluation of their designs. The exposition is accompanied by examples of calculations, illustrations, and diagrams.

The book is intended as a textbook for students of the geodetic institutes; may be utilized by geodetic engineers and builders employed in setting up signals.

SO: U-6472, 23 Nov 1954

PCLTAVA, L.I., dotsent; FURSOV, V. I., assistent

Automation and telemechanics in central mine substations in coal mines. Izv. vys. ucheb. zav.; gor. zhur. no.11:92-98 1959.
(MIRA 14:5)

1. Dnepropetrovskiy gornyy institut imeni Artema. Rekomendovana kafedroy gornoy elektrotekhniki.

(Coal mines and mining)
(Automatic control)
(Electricity in mining)

FURSOV, Vladimir Ivanovich, dots.; VINBERG, G.G., prof., red.; GESH, N.D., red.; SHALKOVSKAYA, A.V., red.; MORGUNOVA, G.M., tekhn. red.

[Introduction to biology]Vvedenie v biologiiu. Pod red. G.G. Vinberga. Minsk, Izd-vo M-va vysshego, srednego spetsial'nogo i professional'nogo obrazovaniia BSSR, 1962. 268 p. (MIRA 15:11)

(BIOLOGY)

FURSOV, V.I.; BESPAYEV, S.B.

Some cytoembryological data on Acanthophyllum gypsophiloides Rgl. Trudy Alma-At. bot. sada 7:121-124 '63. (MIRA 16:10)

FURSOV, V. I.

"The Biology of Flowering and Fruit Formation of Ili Hemp From the Foothills of the Zailiisk Ala-Tau." Cand Biol Sci, Kazakh U, Alma-Ata, 1953. (RZhBiol, No 8 Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

FURSOV, V.I.

Some features in the fertilization of soft spring wheats. Izv. AN Kazakh.SSR. Ser.biol. no.11:51-57 '56. (MLRA 10:2)
(ALMA-ATA PROVINCE--WHEAT) (FERTILIZATION OF PLANTS)

: USSR
: Cultivated Plants - Industrial, Oleifrous, Sugar. M
: [illegible], 1958, No. 03477
: Fursov, V. I.
: Kazakh University
: Biology of Blossoming in Iliyskiy Hemp.
: Uch. zap. Kazakhsk. un-t, 1956, 21, 75-97
: No Abstract.

Card: 1/1

USSR / General Biology. Genetics. Plant Genetics. B

Abs Jour : Ref Zhur - Biologiya, No 4, 1959, No. 14429

Author : Fursov, V. I.
Inst : Kazakh University
Title : Effect of the Blossom Age Upon the Process of Setting Seeds and Dominance in Spring Wheat

Orig Pub : Uch. zap. Kazakhsk. un-ta, 1957, 29, 35-42

Abstract : It was established that if blossoms of spring wheat are pollinated directly after their castration or a day after, it yields a relatively small fertilized percentage and then this percentage increases, while from the 5-6 day after castration it begins to decrease again. Data are given on the effect of various terms of fertility on the character

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42

USSR / General Biology. Genetics. Plant Genetics. B

FURSOV, V.I.; KHALILOV, F.Kh.

Problems of modern embryology. Izv. AN Kazakh. SSR. Ser. biol. nauk 2 no.1:98-99 Ja - F '64. (MIRA 17:6)

FURSOV, V.I.; BOGDANOVA, Ye.D.

Effect of nicotinic acid on the cytochemical composition of wheat caryopsis. Izv. AN Kazakh. SSR. Ser. biol. nauk 2 no.3: 13-19 My-Je '64. (MIRA 17:10)

FURSOV, V.I.; INYUSHIN, V.M.

Cytochemical characteristics of the germinating wheat caryopsis. TSitologiia. 6 no.3:369-373 My-Je '64. (MIRA 18:9)

1. Kafedra darvinizma i genetiki Biologicheskogo fakul'teta Kazakhskogo universiteta, Alma-Ata.

FURSOV, V.K. (Petrozavodsk)

Method of the presentation of capillary ascent. Fiz.v shkole 23 no.1:24-26 Ja-F '63. (MIRA 16:4)
(Physics—Study and teaching) (Capillarity)

SOV/20-122-1-37/44

AUTHOR: Fursov, V. N.

TITLE: Earthworms in the Grassland and Cotton Fields of South Turkmenia (Dozhdevyye chervi na travyanykh i khlopkovykh polyakh Yuzhnoy Turkmenii)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 1, pp 134-137 (USSR)

ABSTRACT: The activity of earthworms is one of the biological factors which influence the fertility and the earth's movement in the old irrigation area of the Murgab river. In irrigated soils the worms carry out an enormous work: Every year they plough up at least 1-2% of the soil mass of habitable horizons. Thus, the solidity of the structure is considerably increased; the total weight of their excrements reaches 100-122,6 tons/ha (Refs 2,3). During 6 months the worms carry away up to 100 tons/ha of plant rests to deeper layers of the soil. The penetrations of the worms reach 1% of the soil volume (Ref 3). The structure, physical properties as well as the chemical composition of the soil are favorably influenced. From the above mentioned facts it may be seen that the population intensity of earthworms may up to a certain extent serve as an index of fertility (Refs 1,2,7),

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Earthworms in the Grassland and Cotton Fields of South Turkmenia

of the state of cultivation (Ref 3) and as an item for the classification of soils. Tables 1 and 2 show the results of earthworm countings. They reveal that the growing of irrigated fodder plants (lucerns) favors their rapid increase and a thick population of earthworms of the soil. Most of them live in the upper well aired and warm layer of 0-10 cm where also most of the organic substance is contained. A comparison of the amount of rests after a harvest, of the root mass of the grown plants, of the amount of vegetable mold and the number of earth worms shows a direct ratio between these numbers. In the growing of fine textured cotton in South Turkmenia considerable numbers of earthworms occur in the rotation. The highest amount of earthworms is observed after the ploughing up of the grass cover, which is the best basis for cotton. Thus, a rich cotton harvest is guaranteed (Refs 8,17). There are 2 tables and 18 references, 17 of which are Soviet.

ASSOCIATION: Iolotanskaya selektsionnaya stantsiya Turkmenskogo nauchno-issledovatel'skogo instituta zemledeliya (Selection Station of the Turkmenskiy Scientific Research Institute of Agriculture)

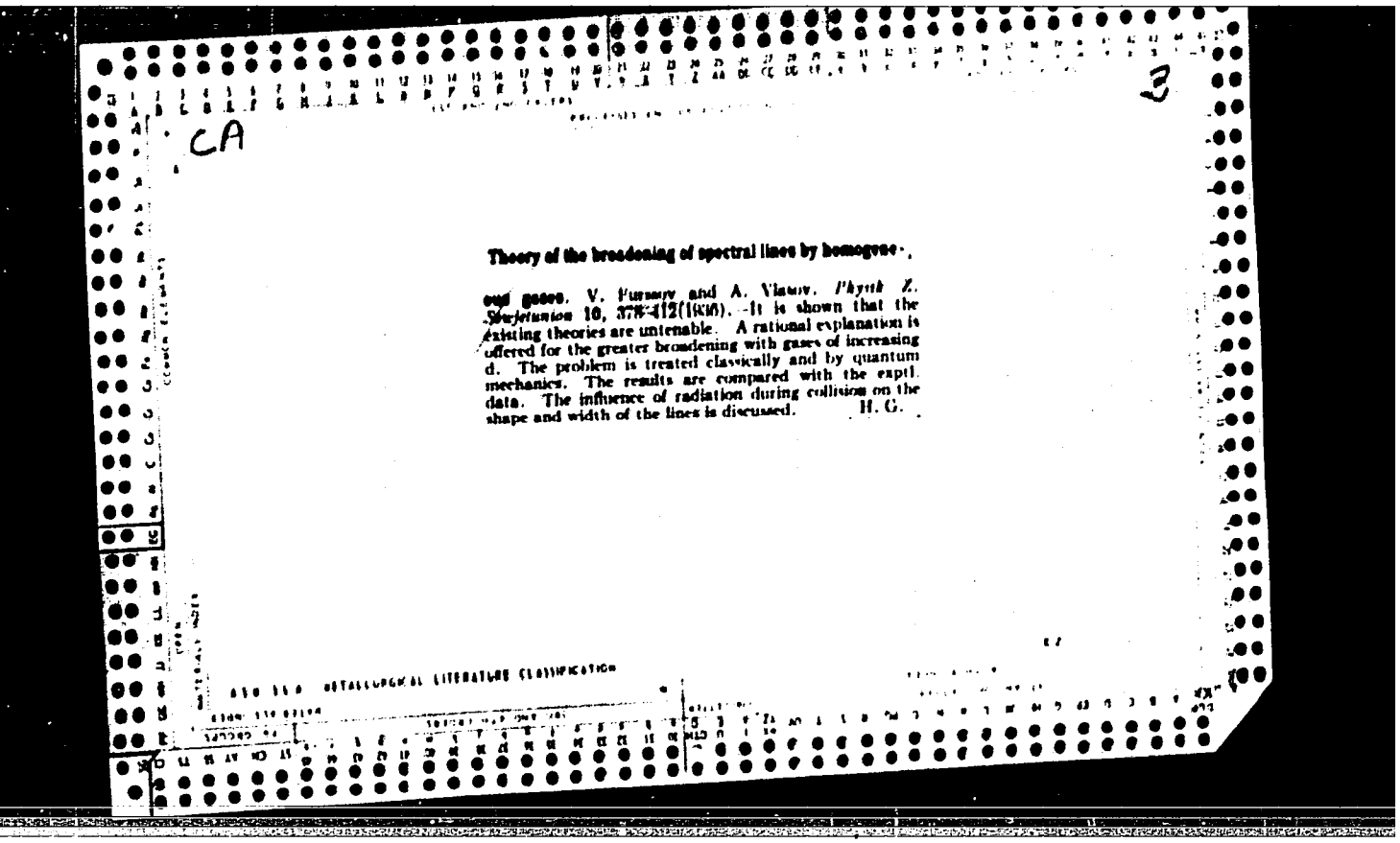
FURSOV, V. N.

Cand Agr Sci - (diss) "Cotton crop rotations in South Turkmenia." Ashkhabad, 1961. 17 pp; (Academy of Sciences Turkmen SSR, Division of Biol Sci); 150 copies; price not given; (KL, 7-61 sup, 253)

FURSOV, V.N.

Seminar on the application of nuclear radiation sources for the increase of agricultural crop yields. Izv. AN Turk. SSR. Ser. biol. nauk no.1:95-97 '64.
(MIRA 17:9)

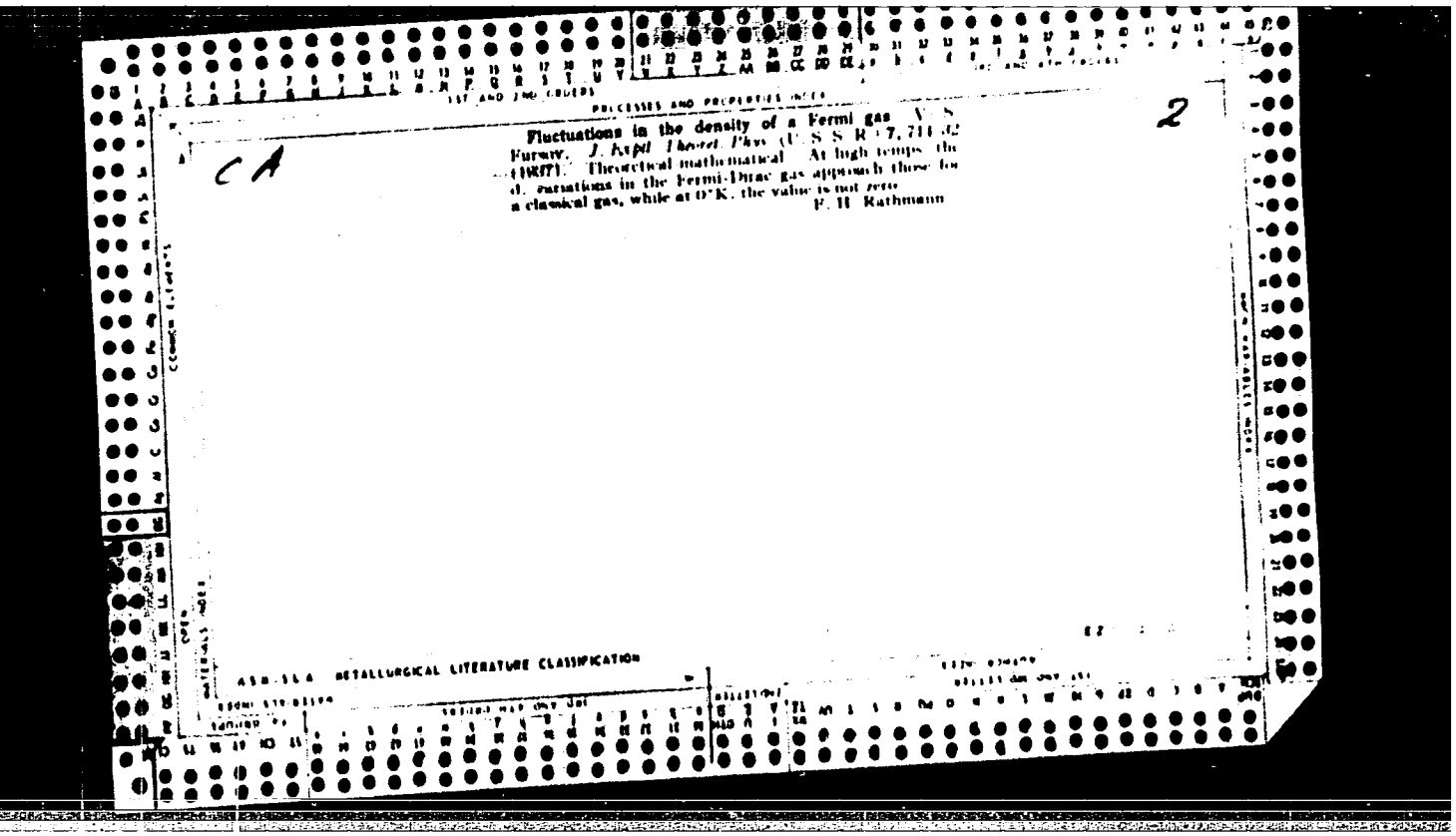
1. Iolatanskaya selektsionnaya stantsiya, Turkmenskaya SSR.



CA

3

Theory of the broadening of spectral lines by homogeneous gases. V. Fursov and A. Vlasov. *Zhurn. Eksperim. i Teoret. Fiziki* 10, 378-412(1940). -It is shown that the existing theories are untenable. A rational explanation is offered for the greater broadening with gases of increasing d. The problem is treated classically and by quantum mechanics. The results are compared with the exptl. data. The influence of radiation during collision on the shape and width of the lines is discussed. H. G.

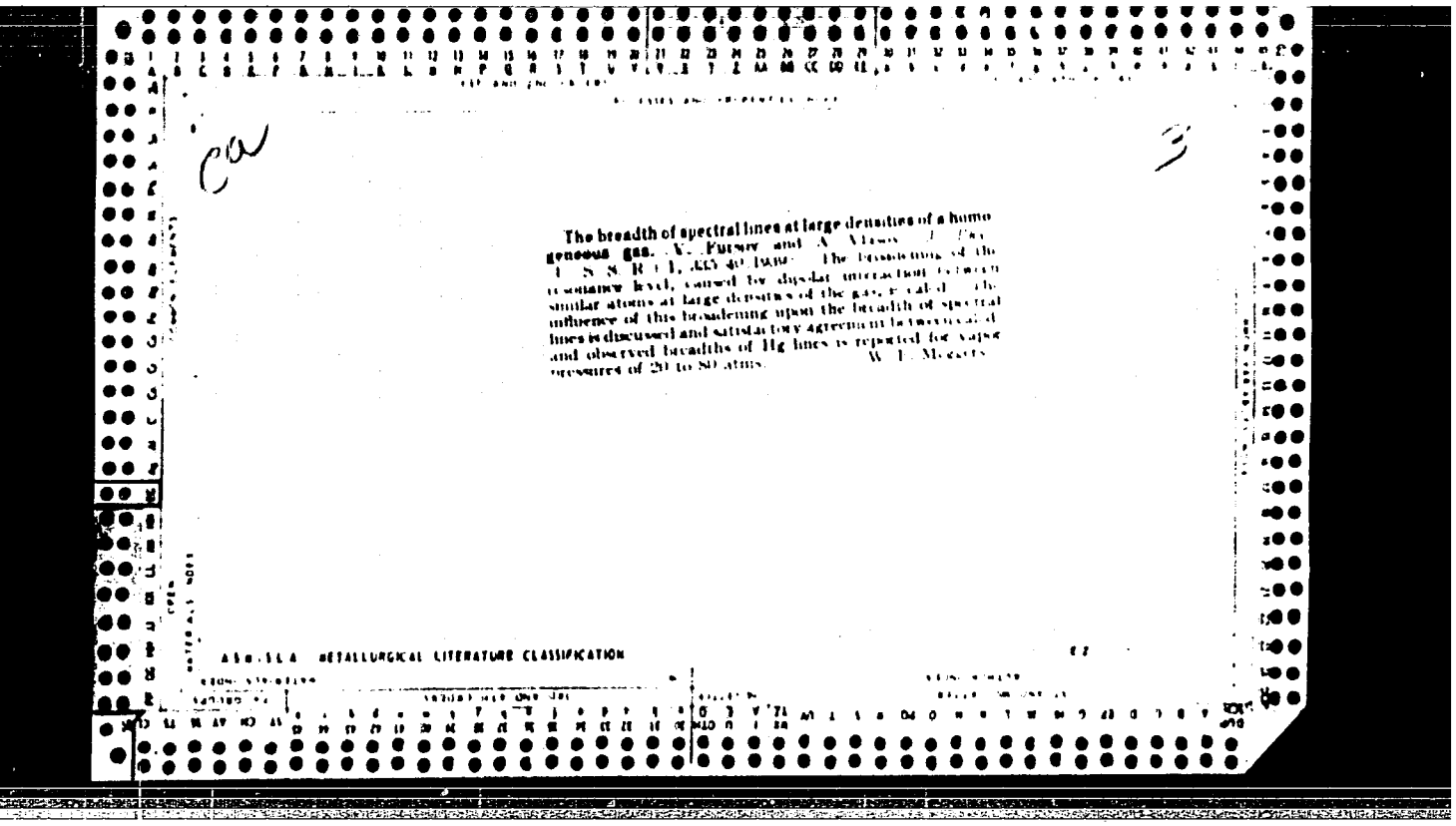


CA

2

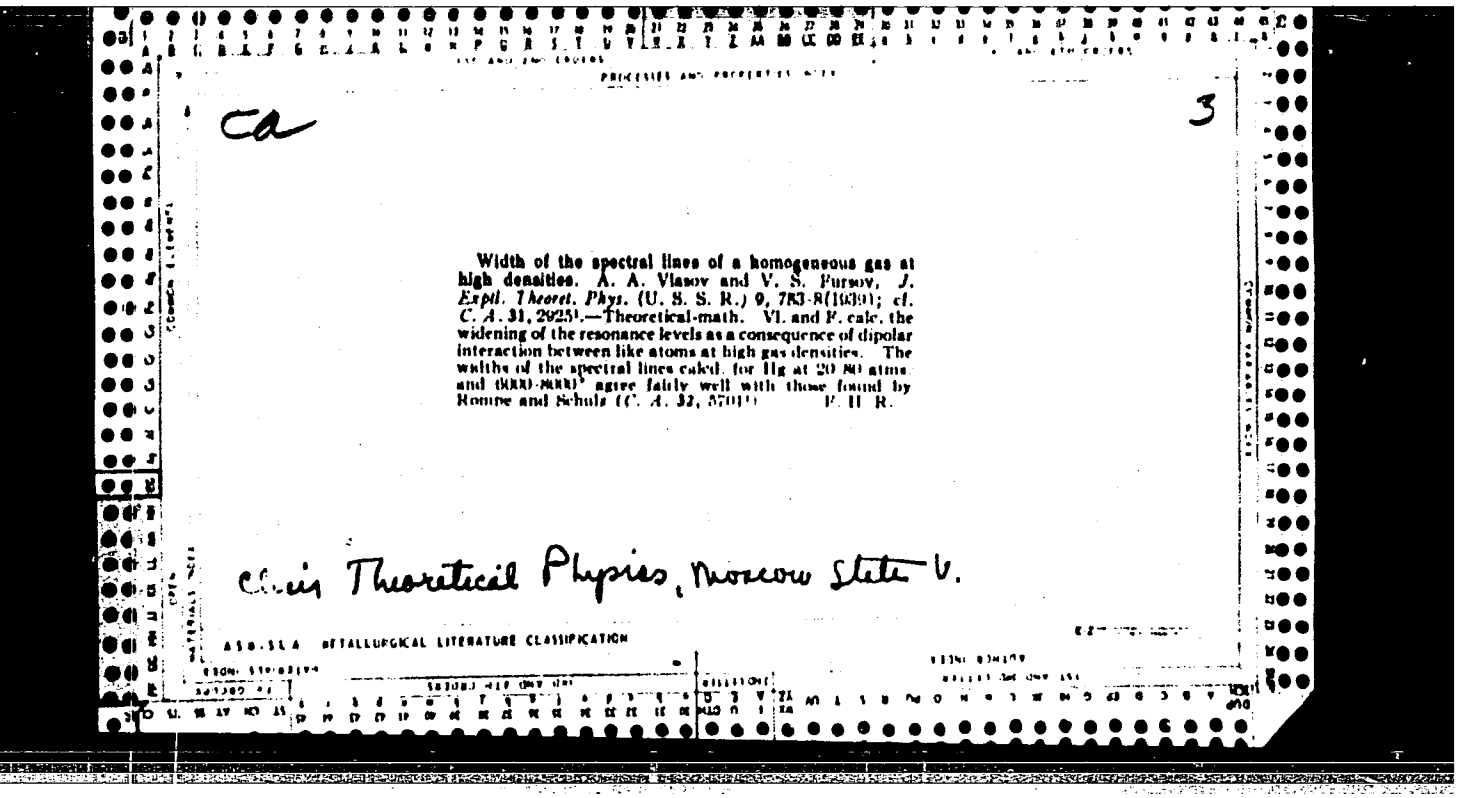
Fluctuations in the density of a Fermi gas. V. S
Purwar. *J. Kanpil Theoret. Phys.* (U. S. S. R.) 7, 711-6
(1957). Theoretical mathematical. At high temps. the
d. variations in the Fermi-Dirac gas approach those for
a classical gas, while at 0°K. the value is not zero.
P. H. Rathmann

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



The breadth of spectral lines at large densities of a homogeneous gas. V. Fursov and A. Vlasov. J. Exp. Theoret. Phys. U.S.S.R. 10, 433-40 (1940). The broadening of the resonance level, caused by dipolar interaction between similar atoms at large densities of the gas, is calculated. The influence of this broadening upon the breadth of spectral lines is discussed and satisfactory agreement between calcd. and observed breadths of Hg lines is reported for vapor pressures of 20 to 80 atms. W. L. Meggers

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



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3

Width of the spectral lines of a homogeneous gas at high densities. A. A. Vlasov and V. S. Pursov, *J. Expil. Theoret. Phys.* (U. S. S. R.) 9, 783-8(1939); *cf. C. A.* 31, 2925⁹.—Theoretical-math. Vl. and P. calc. the widening of the resonance levels as a consequence of dipolar interaction between like atoms at high gas densities. The widths of the spectral lines calcd. for Hg at 20-80 atms. and (0000-8000)° agree fairly well with those found by Romps and Schuls (*C. A.* 32, 5701⁹). P. H. R.

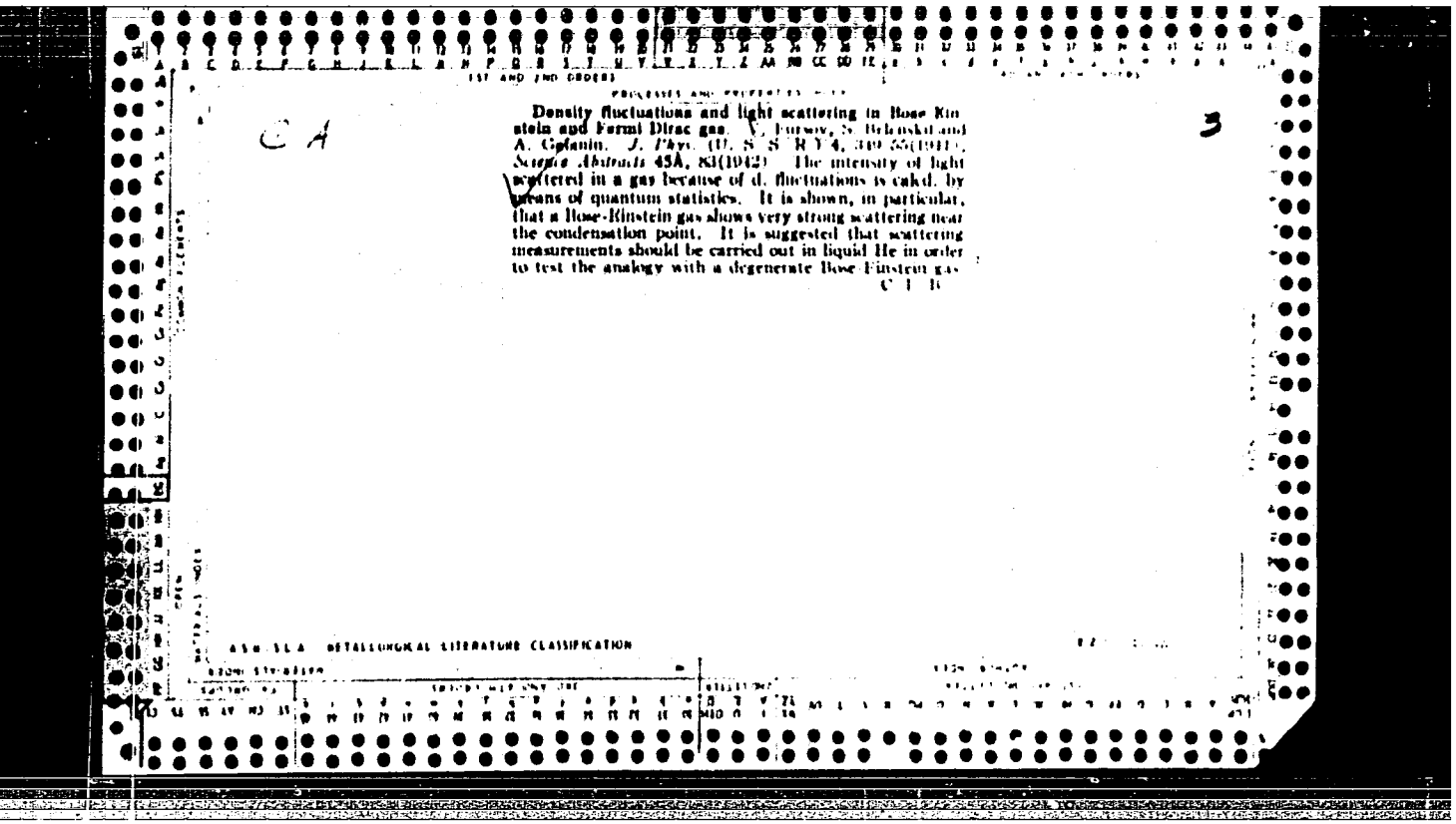
Chair Theoretical Physics, Moscow State U.

A S M - S L A METALLURGICAL LITERATURE CLASSIFICATION

FURSOV, V., BELENSKIY, S. and GALANIN, A. D.

"Density Fluctuations and Light Scattering in Bose-Einstein and Fermi-Dirac Gas." Journal of Physics. (U.S.S.R.), 1941, Vol 4, pp. 349-355.

Abstract: The Intensity of light scattered in a gas because of d. fluctuations is calcd. by means of quantum statistics. It is shown, in particular, that a Bose-Einstein gas shows very strong scattering near the condensation point. It is suggested that scattering measurements should be carried out in Liquid He in order to test the analogy with a degenerate Bose-Einstein Gas.



Density fluctuations and light scattering in Bose Einstein and Fermi Dirac gas. V. Fursov, S. Belinskiĭ and A. Gofanin. *J. Phys. (U. S. S. R.)* 4, 339-55(1941). *Science Abstracts* 45A, 83(1942). The intensity of light scattered in a gas because of d. fluctuations is calcd. by means of quantum statistics. It is shown, in particular, that a Bose-Einstein gas shows very strong scattering near the condensation point. It is suggested that scattering measurements should be carried out in liquid He in order to test the analogy with a degenerate Bose-Einstein gas.

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ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

FURSOV, V. S.

Kilmontovich, In. L., and Fursov, V. S., Influence of interaction between molecules on the inhibition by emission in the classical theory of light dispersion. P. 81

It is pointed out that the term which takes account of inhibition by emission must depend on the thermodynamic parameters in the neutralized Lorenz equations used in the theory of dispersion and absorption of light. This dependence is calculated. The values obtained for the coefficients of refraction and absorption lead to a coefficient of extinction of light which agrees with the value calculated on the basis of the theory of fluctuations.

Moscow State University
May 19, 1949

SO: Journal of Experimental and Theoretical Physics, (USSR) 19, No. 9 (1949)

Tursov, V. S.

Work of the U.S.S.R. Academy of Sciences on uranium-graphite reactors. V. S. Tursov. *Conf. Acad. Sci. U.S.S.R. on Peaceful Uses of Atomic Energy, Session Div. Phys. Math. Sci.* 1955, 1–13(Pub. 1956)(Engl. translation). —See *C.A.* 50, 08i.

B. M. R.

FURSOV,V.S., doktor fiziko-matematicheskikh nauk

Uranium-graphite reactors. Nauka i zhizn' 22 no.9:1-5 S'55.
(Nuclear reactors) (MLRA 8:12)

FORSOV, V.S.

Intensity of oscillations and widening of spectral bands in noble gases. V. S. Forsov, M. N. O[illegible] Soviet Physics (A. A[illegible] State Univ., Leningrad, USSR) [illegible] Acad. Sci. U.S.S.R. 101, 847-8 (1955). — [illegible] of the A spectrum were obtained at 0.1-186 mm. Hg [illegible] app. consisting of light source (gaseous high-frequency [illegible] charge in a capillary glass tube), condenser, rotating sector (1500 rotation/min.), interferometer, spectrograph, and microphotometer. The width of the bands increased with the increase in pressure and was 0.397, 0.458, 0.612 cm.$^{-1}$ for 4510.7 A. and 0.412, 0.471, 0.594 cm.$^{-1}$ for 4583.8 A. at 0.1, 40.7, and 107 mm. Hg, resp. These bands are related to the $^1P_1 - 3^1P_0$ and $^1P_1 - 3^1P_2$ transition levels. The 4300.1, 4272.1, 4269.6, 4181.8, and 4158.6 A. bands also exhibited an increase in width, though to a lesser degree. Calcns. showed that the resonance levels, i.e., the levels from which dipole transitions to the ground state occur, are subjected to the greatest increase in the band width. The width of resonance levels (in wave numbers) is expressed as $2\pi e^2 Nf/mc\omega_0$; where e and m are the charge and mass of electron, ω_0 is cyclic frequency, f is intensity of oscillation of the resonance band, N is number of atoms/unit vol., and c is velocity of light.

A. P. Kotlyar

FURSOV, V.S., doktor fiziko-matematicheskikh nauk; NOVIKOV, I.I., doktor tekhnicheskikh nauk, redaktor; VEGER, A.L., redaktor; MAKUNI, Ye.V., tekhnicheskiy redaktor

[Uranium-graphite nuclear reactors] Uran-grafitovye iadernye reaktory. Moskva, Izd-vo Akademii nauk SSSR, 1956. 38 p.
(Nuclear reactors) (MLRA 9:3)

Fursov outlines the history of the creation of the first Soviet nuclear reactor, the first in Europe; and describes in detail the processes which are the basis of the work of the atomic power station.
Yellow Book, CC 12, 2 Mar 56

DOLLEZHAL', N.A., obshchiy red.; KRASIN, A.K., doktor fiz.-mat.nauk, obshchiy red.; LEYPUNSKIY, A.I., obshchiy red.; NOVIKOV, I.I., obshchiy red.; FURSOV, V.S., doktor fiz.-mat.nauk, obshchiy red.; KORYAKIN, Yu.I., nauchnyy red.; ALYAB'YEV, A.F., red.; MAZEL', Ye.I., tekhn.red.

[Proceedings of the Second International Conference on the Peaceful Uses of Atomic Energy, Geneva, 1958] Trudy Vtoroi mezhdunarodnoy konferentsii po mirnomu ispol'zovaniyu atomnoy energii, Zheneva, 1958. Moskva, Izd-vo Glav.uprav.po ispol'zovaniiu atomnoi energ. pri Sovete Ministrov SSSR. Vol.2. [Nuclear reactors and nuclear power] IAdernye reaktory i iadernaia energetika. 1959. 707 p. (MIRA 12:11)

1. International Conference on the Peaceful Uses of Atomic Energy, 2d, Geneva, 1958. 2. Chleny-korrespondenty AN SSSR (for Dollezhal', Novikov). 3. Deystvitel'nyy chlen AN USSR (for Leypunskiy). (Nuclear reactors)

LEYPUNSKIY, A.I., red.; FURSOV, V.S., doktor fiz.-matem.nauk, red.; STENBOK, I.A., nauchnyy red.; ZAVODCHIKOVA, A.I., red.; FRIDMAN, V.Ya., red.; MAZEL', Ye.I., tekhn.red.

[Works of the Second International Conference on the Peaceful Uses of Atomic Energy. (Selected reports by foreign scientists)]. Trudy Vtoroi mezhdunarodnoi konferentsii po mirnomu ispol'zovaniiu atomnoi energii, Zheneva, 1958. [Izbrannye Doklady inostrannykh uchenykh]. Moskva, Izd-vo Glav.uprav.po ispol'zovaniiu atomnoi energ.pri Sovete Ministrov SSSR. Vol.3. [Physics of nuclear reactors] Fizika iadernykh reaktorov. Pod obshchei red. A.I.Leipunskogo i V.S. Fursova. 1959. 803 p. (MIRA 13:6)

1. International Conference on the Peaceful Uses of Atomic Energy, 2d, Geneva, 1958. 2. Deystvitel'nyy chlen AN USSR (for Leypunskiy). (Nuclear reactors)

6,3750 (2103, 2403, 2605, 3105)
6,3000 (also 1158)
6,4780
S/166/61/000/002/009/010
B108/B209

AUTHOR: Fursov, V. S.

TITLE: Dipole interaction and scattering of light

PERIODICAL: Vestnik Moskovskogo universiteta. Seriya 3, fizika, astronomiya, no. 2, 1961, 60-72

TEXT: The author of the present paper made an attempt to explain how dipole forces act in light scattering. He restricts his considerations to only the dipole terms of the interaction energy in classical theory. The dipole interaction adds to Rayleigh formula as a correction, proportional to the density of the gas, and may be considered as further terms in the expansion. The author to some extent consulted the paper of Reiche, F. (Ref. 3: Ann. d. Phys., 50, 1-121, 1916). The equation of motion for the μ-th out of M oscillating molecules of a homogeneous gas, on the incidence of a plane light wave which determines the electrical moment $\vec{p}$ of the oscillators, has the form

$$\vec{q}_\mu = \alpha\left(\vec{A}e^{-i\vec{k}\vec{r}_\mu} + \sum_{\nu=1}^{M}{}' e^{-ikr_{\mu\nu}} T^{\mu\nu}\vec{q}_\nu\right). \qquad (4)$$

(4)

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with the polarizability of the atoms

$$\alpha = \frac{e^2}{m} \frac{1}{\omega_0^2 - \omega^2 + \frac{2e^2\omega^2}{3mc^3} i}. \quad (5)$$

(5),

where $\vec{p}_\mu = \vec{q}_\mu e^{i\omega t}$ (3) and $\vec{E} = \vec{A}e^{(i\omega t - \vec{k}\vec{r})}$ (1). The q's are independent of time. The tensor $T^{\mu r}$ has the components

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$$T^{\mu\nu}_{xx} = \frac{3(x_\mu - x_\nu)^2 - r^2_{\mu\nu}}{r^5_{\mu\nu}} + ik\frac{3(x_\mu - x_\nu)^2 - r^2_{\mu\nu}}{r^4_{\mu\nu}} - k^2\frac{(x_\mu - x_\nu)^2 - r^2_{\mu\nu}}{r^3_{\mu\nu}};$$

$$T^{\mu\nu}_{xy} = T^{\mu\nu}_{yx} = \left(\frac{3}{r^5_{\mu\nu}} + \frac{3ik}{r^4_{\mu\nu}} - \frac{k^2}{r^3_{\mu\nu}}\right)(x_\mu - x_\nu)(y_\mu - y_\nu);$$

$$T^{\mu\nu}_{xz} = T^{\mu\nu}_{zx} = \left(\frac{3}{r^5_{\mu\nu}} + \frac{3ik}{r^4_{\mu\nu}} - \frac{k^2}{r^3_{\mu\nu}}\right)(x_\mu - x_\nu)(z_\mu - z_\nu); \qquad (6)$$

$$T^{\mu\nu}_{yy} = \frac{3(y_\mu - y_\nu)^2 - r^2_{\mu\nu}}{r^5_{\mu\nu}} + ik\frac{3(y_\mu - y_\nu)^2 - r^2_{\mu\nu}}{r^4_{\mu\nu}} - k^2\frac{(y_\mu - y_\nu)^2 - r^2_{\mu\nu}}{r^3_{\mu\nu}};$$

$$T^{\mu\nu}_{yz} = T^{\mu\nu}_{zy} = \left(\frac{3}{r^5_{\mu\nu}} + \frac{3ik}{r^4_{\mu\nu}} - \frac{k^2}{r^3_{\mu\nu}}\right)(y_\mu - y_\nu)(z_\mu - z_\nu);$$

$$T^{\mu\nu}_{zz} = \frac{3(z_\mu - z_\nu)^2 - r^2_{\mu\nu}}{r^5_{\mu\nu}} + ik\frac{3(z_\mu - z_\nu)^2 - r^2_{\mu\nu}}{r^4_{\mu\nu}} - k^2\frac{(z_\mu - z_\nu)^2 - r^2_{\mu\nu}}{r^3_{\mu\nu}}.$$

This system of equations is solved by approximation. For "distant" particles, i.e., molecules with a spacing of $r_{\mu r} > 1$, where $\sqrt[3]{|\alpha|} \ll 1 \ll \lambda$ (7), Eq. (4)

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may be solved by successive approximation. First approximation with $\vec{q}_\mu^{(0)} = \alpha\vec{A}e^{-i\vec{k}\vec{r}_\mu}$ (8) gives the correction to the Rayleigh formula:

$$\vec{q}_\mu^{(1)} = \alpha\vec{A}e^{i\vec{k}\vec{r}_\mu} + \alpha^2\sum_{\nu=1}^{M}{}' e^{-i(\vec{k}\vec{r}_\nu + kr_{\mu\nu})}T^{\mu\nu}\vec{A}. \qquad (9)$$

(9).

The intensity of the scattered light is calculated from

$$|\vec{E}_1|^2 = |\alpha|^2\left\{\sum_{\mu=1}^{M}|T^{\alpha\mu}\vec{A}|^2 + |\alpha|^2\sum_{\mu=1}^{M}\sum_{\nu=1}^{M}{}'|T^{\alpha\mu}T^{\mu\nu}\vec{A}|^2\right\}. \qquad (10)$$

(10).

For the process of averaging, the author introduces the function $\varphi_{\mu r}$ which equals zero for $r_{\mu r} > 1$. Introducing Eq. (10), one obtains

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$$J_1 = |\alpha|^2 \int\int \cdots \int \left\{ \sum_{\mu=1}^{M} |T^{\alpha\mu}\vec{A}|^2 + |\alpha|^2 \sum_{\mu=1}^{M}{}' \sum_{\nu=1}^{n}{}' |T^{\alpha\mu}T^{\mu\nu}\vec{A}|^2 \right\} \times \quad (11).$$

$$\times e^{-\sum_{\mu<\nu} \varphi_{\mu\nu}} \frac{d\tau_1 d\tau_2 \ldots d\tau_M}{\tau^M}. \quad (11)$$

The simple-sum term (J_R) refers to Rayleigh scattering, so that finally $J_1 = J_R(1 + \frac{|\alpha|}{3} |\alpha| N)$ (14), where $N = M/\tau$ denotes the density of the gas. The so-called "near" particles, i.e., $r_{\mu r} < 1$, may appear in clusters of two or more (atoms); for a rarefied gas, pairs only may be assumed. In this case, the system (4) contains pairs of equations with only one term each, i.e., only the interaction between the particles of a pair is considered:

$$\vec{q}_\mu = \alpha(\vec{A}e^{-i\vec{k}\vec{r}_\mu} + e^{-ikr_{\mu\nu}}T^{\mu\nu}\vec{q}_\nu),$$

$$\vec{q}_\nu = \alpha(\vec{A}e^{-i\vec{k}\vec{r}_\nu} + e^{-ikr_{\mu\nu}}T^{\nu\mu}\vec{q}_\mu). \quad (15) \quad (15).$$

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The tensor components (6) then become

$$T_{xx} = T_{yy} = -\left(\frac{1}{r^3} + \frac{ik}{r^2} - \frac{k^2}{r}\right),$$

$$T_{zz} = 2\left(\frac{1}{r^3} + \frac{ik}{r^2}\right), \qquad (16a),$$

$$T_{xy} = T_{xz} = T_{yz} = 0, \qquad (16a)$$

when the z-axis is chosen to connect the two oscillators of a pair, and only the first terms in Eq. (6) are considered. In order to account for the further terms, too, the expansion

$$e^{-ikr} = 1 - ikr - \frac{k^2r^2}{2} + \frac{ik^3r^3}{6} + \ldots \qquad (17)$$

(17),

up to the third-order terms, is used, giving the result

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$$q_x = q'_x = \frac{e^2}{m} \frac{A_x e^{-i\vec{k}\vec{r}_\mu}}{\omega_0^2 - \omega^2 + \frac{e^2}{mr^3} + \frac{4e^2k^2l}{3m}}, \quad (18).$$

$$q_y = q'_y = \frac{e^2}{m} \frac{A_y e^{-i\vec{k}\vec{r}_\mu}}{\omega_0^2 - \omega^2 + \frac{e^2}{mr^3} + \frac{4e^2k^2l}{3m}}, \quad (18)$$

$$q_z = q'_z = \frac{e^2}{m} \frac{A_z e^{-i\vec{k}\vec{r}_\mu}}{\omega_0^2 - \omega^2 - \frac{2e^2}{mr^3} + \frac{4e^2k^2l}{3m}},$$

The total energy flux

$$\sigma = \frac{4\omega^4}{3c^3}(|q_x|^2 + |q_y|^2 + |q_z|^2); \quad (19) \quad (19)$$

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emitted by one atom pair, is, with the angle ϑ between $\vec{A}$ and z-axis, equal to

$$d = \frac{4\omega^4 e^4 A^2}{3c^3 m^2}\left\{\frac{\sin^2\vartheta}{\left(\omega_0^2-\omega^2+\frac{e^2}{mr^3}\right)^2+\frac{16e^4k^2}{9m^2}}+\frac{\cos^2\vartheta}{\left(\omega_0^2-\omega^2-\frac{2e^2}{mr^3}\right)^2+\frac{16e^4k^2}{9m^2}}\right\}. \quad (20) \quad (20).$$

The total energy loss, due to all pairs, is given by

$$\sum = \frac{M(M-1)}{2\tau}\int_0^{2\pi} d\varphi \int_0^{\pi} d\vartheta \int_0^{l} dr\, r^2 \sin\vartheta.$$

or, if $\xi_1 = \omega_o^2 - \omega^2 + e^2/ml^3$ and $\xi_2 = \omega_o^2 - \omega^2 - 2e^2/ml^3$, by the following expression:

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$$\sum = \frac{16\pi\omega^4 e^4 A^2 M(M-1)}{27c^2 m^2 \tau}\left\{\int_{\xi_1}^{\infty} \frac{d\xi}{\xi^2 + \frac{16e^4k^2}{9m^2}} \frac{1}{(\xi-\omega_0^2+\omega^2)^2} + \right.$$

$$\left. + \int_{-\infty}^{\xi_2} \frac{d\xi}{\xi^2 + \frac{16e^4k^2}{9m^2}} \frac{1}{(\omega_0^2-\omega^2-\xi)^2}\right\}. \qquad (23)$$

The final expression

$$\sum = \frac{4\pi^2\omega^4 e^4 A^2 M(M-1)}{9c^2 m^2 k^2 (\omega_0^2-\omega^2)^2 \tau}. \qquad (24) \qquad (24)$$

with Eq. (5) can be seen to differ from Rayleigh's by the factor .

$\frac{\sum}{\sum_R} = \frac{\lambda^3 N}{6\pi}$ (25). The absorbance is found to be

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$$h = h_R\left(1 + \frac{\lambda^3 N}{6\pi}\right). \qquad (26)$$

where $h_R = \frac{|n^2 - 1|^2 \omega^4}{6\pi c^4 N}$ is the value obtained by Rayleigh. Eq. (26), however, is applicable to low temperatures, i.e., slow motion only L. I. Mandel'shtam is mentioned with reference to his paper (Ref. 4: Polnoye sobraniye trudov, t. 1. Izd-vo AN SSSR, M., 1948, str. 125, 162 i 170). There are 5 references: 2 Soviet-bloc and 3 non-Soviet-bloc.

ASSOCIATION: Kafedra obshchey fiziki (Department of General Physics)

SUBMITTED: November 15, 1960

Card 10/10

L 38900-66 EWT(1)
ACC NR: AP6029724 SOURCE CODE: UR/0109/66/011/005/0966/0967

AUTHOR: Zernov, D. V.; Timofeyev, P. V.; Fursov, V. S.; Migulin, V. V.; Spivak, G. V.; Spasskiy, B. I.; Nilender, R. A.; Grozdover, S. D.; Shemayev, A. M.; Solntsev, G. S.; Kuzovnikov, A. A.; Zaytsev, A. A.; Vasil'yeva, M. Ya.; Mitsuk, V. Ye.; Dubinina, Ye. M.; Zheludeva, G. A.

ORG: none

TITLE: Nikolay Aleksandrovich Kaptsov

SOURCE: Radiotekhnika i elektronika, v. 11, no. 5, 1966, 966-967

TOPIC TAGS: electric engineering personnel, magnetron, klystron, corona discharge, gas conduction, gas discharge plasma

ABSTRACT: N. A. Kaptsov passed away 10 February 1966. He was a student of the famous P. N. Lebedev, and performed many fundamental investigations in the development of modern electronics. He was the creator and leader of the chair of electronics of Moscow State University. He developed the concept of phase grouping of electrons. His ideas are the basis for the development of the magnetron and klystron. He developed the concept explaining the phenomenon of corona discharge. He also developed ideas connected with formation of gas conduction and phenomena in a gaseous-discharge plasma. Kaptsov served for years as the head of the physical laboratory and consultant to the Moscow Electron Tube Plant. He was the author of numerous books, including "Physical Phenomena in Vacuum and in Gases, which was translated into foreign languages; he also created and taught numerous electronics courses. [JPRS: 36,501]

SUB CODE: 05, 09 / SUBM DATE: none

Card 1/1 0918 0203

KUBOV, V. Ye.

"Useful birds in the agriculture of Tadzhikistan", Sel. Khoz-vo Tadzhikistana, 1949, No. 2, p. 27-29

SO: U-411, 17 July 1953, (Letopis 'Zhurnal 'nykh Statey, No. 24, 1949).

FURSOV, V. Z. Cand Geol-Min Sci -- (diss) "~~Experiment~~ Supervised Supervision in the ~~application~~ of geophysical prospecting for blind ore bodies in the Achisay (Turlanskoye) ~~mine~~ ore field." Alma-Ata, 1958. 15 pp (Acad Sci Kazakh SSR. Inst of Geol [redacted] Sci), 155 copies (KL, 52-58, 100)

7-58-3-12/15

AUTHOR: Fursov, V. Z.

TITLE: Dispersion Halos of Mercury as a Characteristic Feature of Prospecting in the Achisay Deposit (Oreoly rasseyaniya rtuti, kak poiskovyy priznak na svintsovo-tsinkovom mestorozhdenii Achisay)

PERIODICAL: Geokhimiya, 1958 Nr 3, pp. 267 - 272 (USSR)

ABSTRACT: The mercury dispersion halos were investigated in order to find out if they are suited for prospecting. 4528 samples were investigated; they are from the geophysical Turlan expedition of the Kazakh Geophysical Trust (Turlanskaya geofizicheskaya ekspeditsiya Kazakhskogo geofizicheskogo tresta). The author arrives at the following conclusions: 1) In galenite, sphalerite, pyrite, cerussite and Smithsonite mercury occurs in quantities that are ten to one thousand times greater than the average content. In the rocks of the Achisay deposit mercury can not be found far from the ore bodies (sensitivity 3.10^{-5} %).

Card 1/3 2) The occurrence of distribution halos of mercury on the

Dispersion Halos of Mercury as a Characteristic Feature of Prospecting in the Achisay Deposit

surface in the epicenters of blind ore bodies located at a depth of from 25 to 300 m was found.

3) The investigation of the most important breaks and crevices at Achisay proved the occurrence of mercury only in certain closely limited areas of these tectonic zones.

4) In some cases mercury distribution halos occur where those of lead and zinc lack completely.

5) A considerable part of the distribution halos is fixed only to primitive rocks. The lack of mercury distribution halos in alluvium-Diluvium can be explained by its distribution of hypogenetic processes which lead to contents below the sensitivity of spectral analysis.

6) The mercury distribution halos in the Achisay deposit can be used as indirect indication in prospecting.

7) The mercury distribution halos can serve as a sign in the prospecting for blind ore bodies also in other deposits. There are 2 figures, 2 tables, and 3 references, which are Soviet.

7-58-3-12/15

Dispersion Halos of Mercury as a Characteristic Feature of Prospecting in the Achisay Deposit

ASSOCIATION: Kazakhskiy geofizicheskiy trest, Alma-Ata (Alma-Ata, Kazakh Geophysics Trust)

SUBMITTED: December 10, 1957

1. Mercury--Spectra 2. Mercury--Sources 3. Mercury--Availability 4. Minerals--Deposits

Card 3/3

FURSOV, V.Z.

Use of underground gravimetry in the Achisay polymetallic mines.
Vest. AN Kazakh. SSR 14 no.7:74-80 Jl '58. (MIRA 11:9)
(Achisay--Prospecting--Geophysical methods)

SOLOVOV, A.P.; KURSOV, V.Z.

Prospecting for blind ore bodies in the Achisay deposit. Sov. geol. 2 no.3:126-140 Mr '59. (MIRA 12:6)

1. Ministerstvo geologii i okhrany nedr Kazakhskoy SSR, Kazakhskiy geofizicheskiy trest.
(Kara-Tau--Ore deposits)

[illegible], V.Z.

Search for blind lead-zinc deposits based on mercury dispersion halos. Dokl. AN SSSR 137 no.2:411-414 Mr '61. (MIRA 14:2)

1. Kazakhskiy geofizicheskiy trest. Predstavlena akademikom D.S. Korzhinskim.
(Achisay region—Geochemical prospecting) (Mercury)

GORBUNKIN, V.I.; KIRYUSHKIN, D.M.; MALININA, S.I.; PKHAKADZE, Ye.A.; FURSOVA, K.N.

Independent work of eight grade students in the first topic of their chemistry course. Khim. v shkole 15 no.5:21-30 S-O '60. (MIRA 13:10)

(Chemistry—Study and teaching)

FURSOVA, K.N., uchitel'nitsa

Some methods of stimulating the cognitive activity of students in chemistry lessons. Khim. v shkole 18 no.6:42-46 N-D '63. (MIRA 17:1)

1. Srednyaya shkola No.312, Moskva.

L 33861-66 EWP(j)/EWP(k)/EWT(m)/T/SWT(v) IJP(c) BM/WW/JW

ACC NR: AR6015910 (A) SOURCE CODE: UR/0081/65/000/022/S027/S027

40
B

AUTHOR: Fedorov, Ye. I.; Mikhant'yev, B. I.; Fursova, L. Ya.

TITLE: Emulsion copolymerization of 2-allylaminopyridine and N-vinyl-2-pyridone with bivinyl and styrene

SOURCE: Ref. zh. Khimiya, Abs. 22S157

REF SOURCE: Tr. Labor. khimii vysokomolekul. soyedineniy. Voronezhsk. un-t, vyp. 3, 1964, 100-104

TOPIC TAGS: emulsion polymerization, copolymerization, pyridine, vinyl compound, styrene

ABSTRACT: The copolymerization (CP) of N-vinyl-2-pyridone and 2-allylaminopyridine with bivinyl and styrene was carried out in an emulsion, the latex obtained was tested for bonding cord with rubber, and the effect of ultrasound on the adhesive properties of the latex were studied. The emulsion CP was carried out at 20° and a ratio of the hydrocarbon phase (HP) to the aqueous phase of 100:150; the HP consisted of 70% bivinyl and 30% styrene (the pyridine derivatives were introduced by decreasing the amount of styrene); the aqueous phase (in % of HP) consisted of: water 150, synthetic fatty acid (C_{10}-C_{16}) 4, KOH 0.9, hydroquinone 0.035, Na_2SO_3 0.2, trilon B 0.025, cumene hydroperoxide 0.25, Loukanol 0.5, diproxid 0.2. The copolymers B, C,

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ACC NR: AR6015910

D contained 3.1, 5.53, and 4.1% of pyridine derivatives respectively. The impregnant for the cord was prepared from latex, resorcinol-formaldehyde resin, and a carbon black dispersion. It is shown that admixtures of pyridine derivatives do not appreciably affect the bonding of the cord to the rubber; an increase in the static strength of the bond is observed only in latex B in the case of rubber based on synthetic butadiene rubber; irradiation with ultrasound does not affect the adhesive properties of the latexes. A. Zak. [Translation of abstract]

SUB CODE: 07,11

Card 2/2

2271 Fursova, M.N.

160 Yaits Ot Kazhdoy Nesushki. (Ptitsesovkhoz "Zaokskiy"). Tuga, Oblknigoizdat, 1954. 16s. 20sm. (Peredovikp Sel'skogo Khozyaystva). 5.000 EKZ. 25k.-
(54-57001)p 636.5.083st (47.391)

GUREVICH, T.Z.; KARMAZIN, I.Ya.; FURSOVA, M.M. (Moskva)

Use of hypothiazide in polyclinical practice. Klin.med. 40 no.6:134-136 Je '62. (MIRA 15:9)

1. Iz dispansernogo otdela (zav. O.Ye. Morokhovets) TSentral'noy poliklinik pri Ob"yedinennoy tsentral'noy bol'nitse Ministerstva zdravookhraneniya RSFSR (glavnyy vrach N.I. Yermolov).
(THIADIAZINE)

FURSOVA, Mariya Nikiforovna, ptichnitsa; SELEZNEV, N.G., red.; PULIN, L.I., tekhn.red.

[We shall obtain 200 eggs per laying hen] Budet 200 iaits ot nesushki. Tula, Tul'skoe knizhnoe izd-vo, 1960. 17 p. (MIRA 14:1)

1. Sovkhoz "Zaokskiy."
(Eggs--Production)

FURSOVA, M.Z.

Types of jarosite in the Karagayly complex metal deposit of central Kazakhstan. Izv. AN Kazakh. SSR. Ser. geol. no.1:111-117 '60. (MIRA 13:8)

(Karagayly region (Kazakhstan)--Jarosite)

MUKANOV, K.M.; FURSOVA, M.Z.; YANULOVA, M.K.

Plattnerite from the oxidation zone of a lead-barite deposit of Karagayly. Vest.AN Kazakh.SSR 17 no.1:45-52 Ja '61.
(MIRA 14:1)

(Plattnerite) (Kazakhstan--Lead ores)

SATPAYEVA, T.A.; NURALIN, N.N.; SHVEDKO, V.K.; FURSOVA, M.Z.
DZHAMINOV, K.D.

Characteristics of the distribution of ore material in some rocks of the Dzhezkazgan series. Vest. AN Kazakh. SSR 17 no.9:70-83 S '61. (MIRA 16:8)

SATPAYEVA, T.A.; SAFARGALIYEV, G.S.; POLYAKOVA, T.P.; SATPAYEVA, M.K.; MARZUVANOV, V.L.; FURSOVA, M.Z.

New complex sulfide in the ores of the Dzhezkazgan deposit. Izv. AN Kazakh. SSR. Ser. geol. 21 no.2:29-41 Mr-Ap'64. (MIRA 17:5)

1. Institut geologicheskikh nauk imeni K.I. Satpayeva AN Kazakhskoy SSR, Alma-Ata i Dzhezkazganskiy gornometallurgicheskiy kombinat, gorod Dzhezkazgan.

FURSOVA, N.P.

Petroleum potential and formation of oil pools in the Pripet Graben. Dokl.AN BSSR 3 no.10:413-416 O '59. (MIRA 13:2)

1. Predstavleno akademikom AN BSSR K.I.Lukashevym.
(Pripet Valley--Oil fields)

FURSOVA, A. P. Cand Geo/~~Mineral~~ Sci (diss) "Tectonics and oil-bearing characteristics of the Pripyask graben," Leningrad, 1960, 24 pp (Academy of Sciences Belorussian SSR. Institute of Geological Sciences. All Union Petroleum Scientific Research Geological Exploration Institute - VNIGRI)

(KL, 40-60, 121)

FURSOVA, N.P.

Tectonic structure and conditions of the formation of structures of the Pripet Graben connected with oil pools. Dokl.AN BSSR 4 no.3:126-128 Mr '60. (MIRA 13:6)
(Pripet Valley--Petroleum--Geology)

FURSOVA, N.P.

Relation between the fracturing of Stavropol rocks and their litho-petrographic and chemical composition. Geol. nefti i gaza 6 no.11: 59-61 N '62. (MIRA 15:12)

1. Grozenskiy nauchno-issledovatel'skiy neftyanoy institut.

BURLAKOV, I.A.; FURSOVA, N.P.

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1. Stavropol'skiy filial [illegible]sledovatel'skogo institute.

FURSOVA, N.V.; YERMAKOVA, T.P.

Investigating the changes occurring in protein substances during the processing of cacao beans and their effect on the quality of cocoa powder. Trudy VKNII no.16:43-50 '62. (MIRA 16:5)
(Cocoa)

GOTMAN, Ya.D.; FURSOVA, O.P.; MALAKHOVA, V.M.

Wall rock transformations during the ore formation process in the casserite-sulfide deposits as revealed by the studies of the Khrustal'nyy deposit. Min.syr'e no.5:36-46 '62. (MIRA 16:4)
(Sikhote-Alin' Range--Ore deposits)

BIGLER, M.S.; SHARYGINA, L.I.; KASPAROVA, A.B.; YAKOVLEV, V.A.; GRINEVICH, N.N.; YUDINA, A.P.; SEMICHENKO, N.P.; STOLYAROV, A.I.; FURSOVA, T.A.; KOZLOV, I.D., red.; SERPOKRYL, S.M., red.

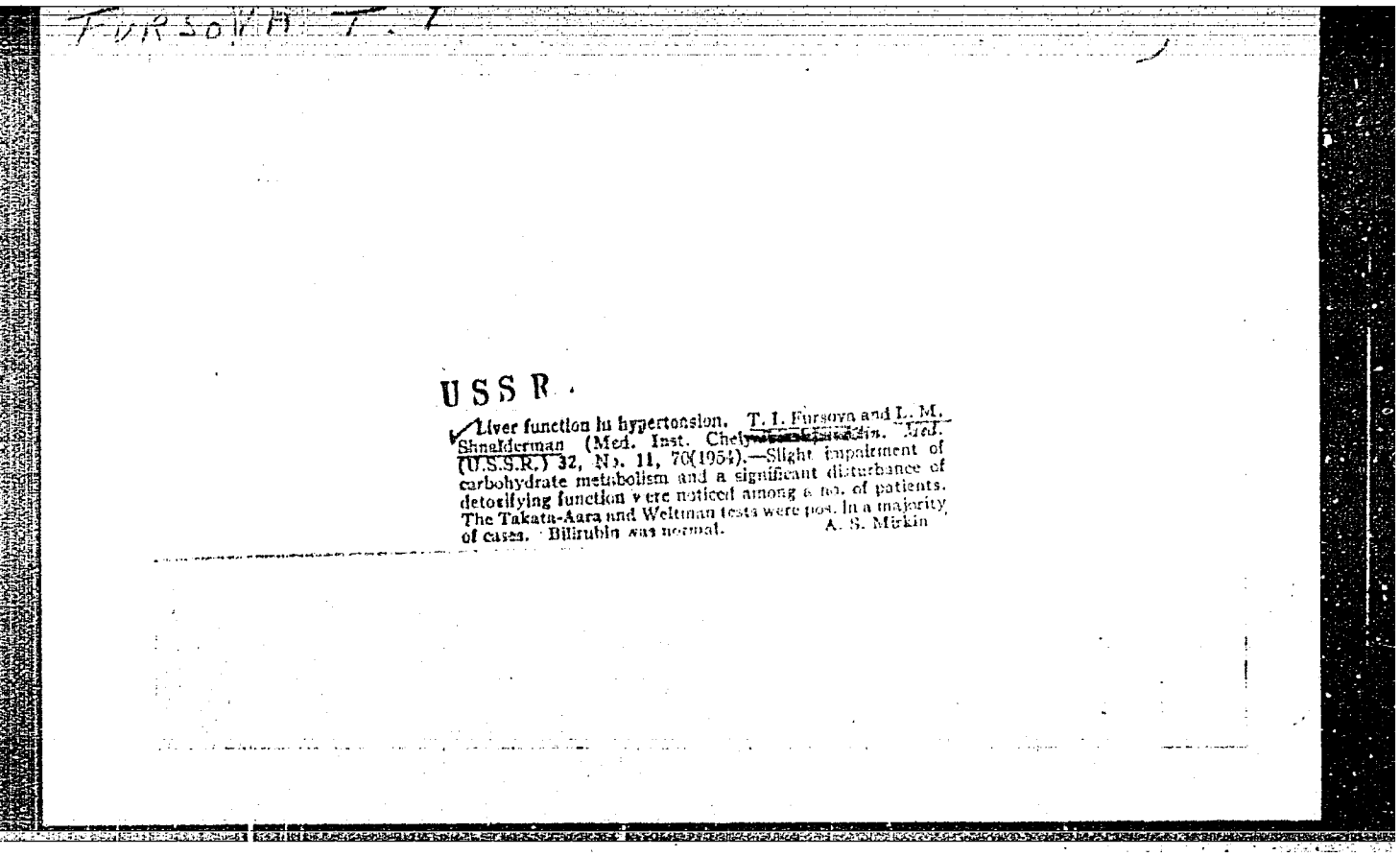
[Leningrad and Leningrad Province in figures; a statistical abstract] Leningrad i Leningradskaia oblast' v tsifrakh; statisticheskii sbornik. Leningrad, Lenizdat, 1964. 250 p. (MIRA 18:1)

1. Leningrad (Province) Statisticheskoye oblastnoye upravleniye. 2. Statisticheskoye upravleniye goroda Leningrada (for Bigler, Sharygina, Kasparova, Yakovlev, Grinevich, Yudina). 3. Statisticheskoye upravleniye Leningradskoy oblasti (for Semichenko, Stolyarov, Fursova). 4. Nachal'nik Statisticheskogo upravleniya goroda Leningrada (for Kozlov).

BIGLER, M.S.; SHARYGINA, L.I.; KASPAROVA, A.B.; YAKOVLEV, V.A.; GRINEVICH, N.N.; YUDINA, A.P.; SEMICHENKO, N.P.; STOLYAROV, A.I.; FURSOVA, T.A.; KOZLOV, I.D., red.; SERPOKRYL, S.M., red.

[Leningrad and Leningrad Province in figures; a statistical abstract] Leningrad i Leningradskaia oblast' v tsifrakh; statisticheskii sbornik. Leningrad, Lenizdat, 1964. 250 p. (MIRA 18:2)

1. Leningrad. Statisticheskoye upravleniye. 2. Statisticheskoye upravleniye Leningrada (for Kozlov, Sharygina, Kasparova, Yakovlev, Grinevich, Yudina). 3. Statisticheskoye upravleniye Leningradskoy oblasti (for Semichenko, Stolyarov, Fursova).



FURSOVA T. I.

USSR

Liver function in hypertension. T. I. Fursova and L. M. Shnalderman (Med. Inst. Chelyabinsk). Klin. Med. (U.S.S.R.) 32, No. 11, 70(1954).—Slight impairment of carbohydrate metabolism and a significant disturbance of detoxifying function were noticed among a no. of patients. The Takata-Aara and Weltman tests were pos. in a majority of cases. Bilirubin was normal. A. S. Markin

KORYAKIN, V.I.; FURSOVA, V.V.

Effect of the type and concentration of the catalyst on the yield of furfurole in the pyrolysis of birch wood. Sbor. trud. TSNILKHI no.15:8-11 '63. (MIRA 17:11)

KORYAKIN, V.I.; KHLYAKOVA, I.A.; FOMICOVA, V.V.; RUD', L.A.

Yield of furfurole and other wood chemical products in the pyrolysis of beechwood impregnated with sulfuric acid. Gidrolis. i lesokhim. prom. 17 no.5:15-17 '64. (MIRA 17:10)

IVANOVA, N.M.; KOZHINA, A.D.; PERELYGINA, L.I.; TARASOVA, V.A.; FURSOVA, Ye.I.; CHEREZOVA, R.S.; SHKOL'NIK, Ye.I.; SHLEYFMAN, Kh.I.

[Economy of Voronezh Province in 1960; collection of statistics] Narodnoe khoziaistvo Voronezhskoi oblasti v 1960 godu; statisticheskii sbornik. Voronezh, Voronezhskoe otd-nie Gosstatizdata, 1961. 139 p. (MIRA 15:6)

1. Voronezh. Oblastnoye statisticheskoye upravleniye.
(Voronezh Province—Economic conditions)

L 10293-63 EPR/EPF(c)/EWT(1)/EPF(n)-2/EWP(q)/
EWT(m)/T-2/BDS--AFFTC/ASD/SSD--Ps-4/Pr-4/Pu-4--WW/JD/JG
ACCESSION NR: AP3002269 S/0089/63/014/006/0584/0585

AUTHOR: Borishanskiy, V. M.; Fursova, E. V.

TITLE: Heat transfer in longitudinal flow of metallic sodium about a bank of tubes

SOURCE: Atomnaya energiya, v. 14, no. 6, 1963, 584-585

TOPIC TAGS: heat transfer, metallic sodium, liquid metal, mercury, bank of tubes

ABSTRACT: A study has been conducted of heat transfer to metallic sodium (0.017% oxygen content by weight) in longitudinal flow about a bank of tubes with relative spacing s/d = 1.2, temperature of 210--310C, Pr = 0.0072--0.0057, and flow velocity between tubes of 0.16--2.02 m/sec. The test section of the closed-circulation-loop experimental setup consisted of a bank of seven heated tubes 700 mm in length and 22 x 2.5 mm in diameter enclosed in a cylindrical shell. Measurements were made of the surface temperature of the central tube, whose working section was made of copper. The heat transfer from the central tube to the sodium as a function of velocity was studied. Experimental data on heat transfer in the region behind the stabilization section are shown in Fig. 1 of

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L 10293-63
ACCESSION NR: AP3002269

Enclosure. The results obtained were found to be in good agreement with those of A. Friedland et al. (International Developments in Heat Transfer. Part III. N. Y., 1961, p. 526) for mercury at Pr = 0.005--0.02 and s/d = 1.3--1.75, with the tube bank arranged in the form of an equilateral triangle. Formula (1) of Enclosure is recommended for the calculation of heat transfer in the longitudinal flow of a liquid metal about a triangularly arranged tube bank with s/d = 1.3--1.75, Pe greater than 30 and less than 4000, and Re greater than 10 sup 4. The results can be used in developing generalized formulas for the calculation of heat transfer in tube banks of various configurations. Orig. art. has: 2 figures and 1 formula.

ASSOCIATION: none

SUBMITTED: 06Sep62 DATE ACQ: 12Jul63 ENCL: 02

SUB CODE: 00 NO REF SOV: 002 OTHER: 004

Card 2/3

L 10293-63
ACCESSION NR: AP3002269

ENCLOSURE: 01

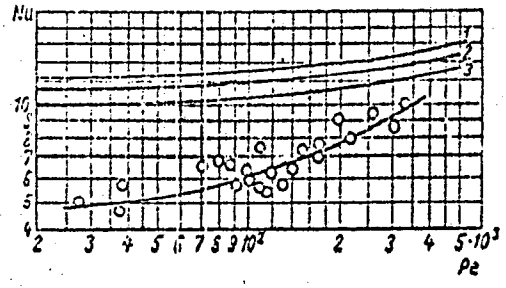

Fig. 1. Experimental data on heat transfer to sodium in the region behind the stabilization section

1 - from formulas of Friedland and Bonilla; 2 - from Dwyer and P. Tu; 3 - from Hortnett and Irvine; ○ - present data (s/d = 1.2).

$$Nu = 6 + 0.006\,Pe \qquad (1)$$

CLUE WORD: Liquid Metal

YH/ae

Card 3/3

FURSOVA, M.F.

Biology of the cabbage aphid (Brevicoryne brassicae (L.)) in the lower reaches of the Murgab. Izv. AN Turk.SSR.Ser.biol.nauk no.1:96-97 '65. (MIRA 18:5)

1. Institut zoologii i parazitologii AN Turkmenskoy SSR.

FURSOVA, Ye.P.

Comparative characteristics of the state of the portal blood flow based on hepatomanometry in patients with cirrhosis of the liver under the influence of conservative treatment. Akt. vop. pat. pech. no.2:219-224 '63. (MIRA 18:8)

FURSOVA, M.F.

Diagnostic significance of determining portal blood flow in various lesions of the liver. Trudy Kaz. nauch. med. ob-va Tadzh. SSR no.1:194-[illegible] '62. (MIRA 17:5)

L 9192-66 EWT(l)/EWT(m)/EWP(b)/EWP(t) IJP(c) JD

ACC NR: AR6000110 SOURCE CODE: UR/0058/65/000/008/D023/D023

SOURCE: Ref. zh. Fizika, Abs. 8D179

AUTHORS: Korolev, F. A.; Odintsov, V. I.; Fursova, Ye. V.

ORG: none

TITLE: Determination of the probability of transition from the $1s_2$ level of neon to the ground state from the natural width of the spectral lines

CITED SOURCE: Tr. Komis. po spektroskopii. AN SSSR, t. 2, vyp. 1, 1964, 273-280

TOPIC TAGS: line width, spectral line, transition probability, neon, electron bombardment

TRANSLATION: An investigation was made of the contours of several spectral lines of neon and the probability of transition from the $1s_2$ level to the ground state was estimated from the natural width of the spectral lines. The light source was an atomic beam of neon, excited by electron bombardment. The high-resolution instrument was a Fabry-Perot etalon. The glow was recorded with the aid of an electrooptical converter. The natural width of the $1s_2$ level was found to be 4×10^{-3} cm^{-1}, corresponding to a transition probability 0.75×10^9 sec^{-1}.

SUB CODE: 20/ SUBM DATE: none/ ORIG REF: 000/ OTH REF: 000

Card 1/1 nb

S/0051/64/016/004/0555/0558

ACCESSION NR: AP4032361

AUTHOR: Korolev, F.A.; Odintsov, V.I.; Fursova, Ye.V.

TITLE: Determination of the transition probability for the 736 Angstrom resonance line of neon

SOURCE: Optika i spektroskopiya, v.16, no.4, 1964, 555-558

TOPIC TAGS: optical transition probability, level width, oscillator strength, resonance line, neon, atomic spectrum

ABSTRACT: The transition probability for the 736 Å resonance line of neon was determined earlier by W.Schutz (Ann.Phys.18,705,1933) and H.Schillback (Ibid.18,721, 1933). They obtained a value of $(8 \pm 4) \times 10^8$ sec^{-1}, which corresponds to an oscillator strength $f = 0.2 \pm 0.1$. However, in view of the procedure employed, the reliability of this result is not sufficient for verifying the theoretical calculations of A.Gold and R.S.Knox (Phys.Rev.113,834,1959). Accordingly, the present measurements were undertaken to obtain a more reliable and accurate value. The transition probability for the Ne 736 Å line was determined with reference to the width of the departure level: $3s'[1/2]^0_1$. The natural width of this upper level was found by in-

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ACCESSION NR: AP4032861

vestigating the contours of several visible lines, specifically, the 6717 & 6266 and 6598 & 6163 Å pairs, all associated with transitions feeding this level and each pair departing from the same 3p level. The source was an atomic beam, which has the advantage that it allows of obtaining lines with a very small Doppler width. The spectroscopic equipment consisted of a scaled Fabry-Perot etalon and an ISP-51 spectrograph (the monochromator); the radiation was detected by means of a photomultiplier viewing an electron-optical image converter. The final average value obtained for the natural width of the $3s'[1/2]^0_1$ level is $(3.5 \pm 0.3) \times 10^{-3}$ cm^{-1}, which corresponds to a value of $(6.6 \pm 0.6) \times 10^8$ cm^{-1} for the transition probability and $f = 0.16 \pm 0.014$ for the oscillator strength. The corresponding theoretical values of Gold and Knox are 4.5×10^8 sec^{-1} and $f = 0.11$, i.e., somewhat lower. Orig.art.has: 3 figures.

ASSOCIATION: none

SUBMITTED: 15Jul63 DATE ACQ: 07May64 ENCL: 00

SUB CODE: OP NR REF SOV: 002 OTHER: 003

Card 2/2

FURTOVA, Ye.V.; SADOVA, G.F.; IVANOVA, V.N.; ZAYKOVSKIY, F.V.

Photometric determination of thorium in natural materials with the use of arsenazo III. Zhur. anal. khim. 19 no. 1: 94-96 '64. (MIRA 17:5)

FURST, A.
SURNAME, Given Names

Country: Czechoslovakia

Academic Degrees: [not given]

Affiliation: [not given]

Source: Prague, Ceskoslovenska gastroenterologie a vyziva, Vol XV, No 3, 1961, pp 167-169.

Data: "My Friend Polak, the Sexagenarian."

GPO 981643

FURST, A.

60th anniversary of Polak. Cesk. gastroent. vyz. 15 no.3:167-169 My '61.

(BIOGRAPHIES)

FURST, A.

Clinical and pathological importance of duodenal diverticula.
Rozhl. chir. 43 no.8:566-570 Ag '64.

FURST, Ernest

Aural manifestations in alkaptonuria and ochronosis. Csl otolaryn 3 no.1:5-9 Mr '54. (KRAL 3:8)

1. Z Liecebneho ustavu UNP v Trenc, Tepliciach.
(EAR, in various diseases,
*alkaptonuria & ochronosis)
(ALKAPTONURIA, manifestations,
*ear)
(OCHRONOSIS, Manifestations,
*ear)